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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/558,383

11/07/2006

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EXAMINER

ROSENAU, DEREK JOHN

ART UNIT

PAPER NUMBER

2834

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<p align="center">Advisory Action Before the Filing of an Appeal Brief</p>	Application No. 10/558,383	Applicant(s) YAMAZAKI ET AL.	
	Examiner Derek J. Rosenau	Art Unit 2834	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 05 February 2009 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
 b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
 (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
 (b) ☐ They raise the issue of new matter (see NOTE below);
 (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
 5. ☐ Applicant's reply has overcome the following rejection(s): _____.
 6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
 7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
 The status of the claim(s) is (or will be) as follows:
 Claim(s) allowed: _____.
 Claim(s) objected to: _____.
 Claim(s) rejected: _____.
 Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
 9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
 10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
 12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____.
 13. ☐ Other: _____.

/Quyen Leung/
SPE, Art Unit 2834

Continuation of 11. does NOT place the application in condition for allowance because: Applicant's arguments filed 5 February 2009 have been fully considered but they are not persuasive.

Applicant argues that it would not be obvious to combine the teachings of Kennedy et al. with those of Kimura et al., as Kennedy et al. merely discloses a known sintering aid for sintering ceramic material, and that because of this, the teachings of Kennedy et al. are not pertinent to Kimura et al. However, as Kimura et al. is directed to piezoelectric ceramic materials and Kennedy et al. is directed to a sintering aid for ceramic compositions in general, the teachings of Kennedy et al. would be pertinent to Kimura et al., and it would therefore be obvious to combine their teachings.

Applicant argues that the sintering aids used as additives in the ceramic composition of Kennedy et al. would impair the piezoelectric characteristics of the piezoelectric composition of Kimura et al., as taught by Yoshihiro Konishi and Toshiro Tsuji in "Basis and Application of Electroceramics". However, this reference does not provide the concentration at which deterioration of piezoelectric characteristics takes place. In paragraphs 14 and 15 of the present application, applicant admits that deterioration of the piezoelectric characteristics takes place with concentrations greater than 5%. Even if the deterioration does occur at concentrations below 5%, there would be a tradeoff between sinterability and piezoelectric characteristics that one of ordinary skill in the art would have to balance in designing the piezoelectric ceramic material. In addition, the combination of Kimura et al. and Kennedy et al. yields a composition having each of the claimed structural elements, and would therefore inherently possess the same advantages and disadvantages as the claimed composition.

Applicant argues that because it was known that the piezoelectric characteristics would vary based on the added components, that there would be no motivation to combine the teachings of Kimura et al. and Kennedy et al. However, even if the sintering aid concentration is sufficient to cause deterioration in the piezoelectric characteristics, it would remain obvious to combine the sintering aid of Kennedy et al. with the composition of Kimura et al. for the benefit of improved sinterability. Applicant argues that one of ordinary skill in the art would not have looked to Kennedy et al. to solve the problem of preventing the impairment of piezoelectric characteristics of a piezoelectric ceramic composition. However, the references need not solve the problem with which the applicant was concerned. It would have been obvious to a person of ordinary skill in the art to look to Kennedy et al. for its teachings of improved sinterability.

Applicant argues that Kennedy et al. is unrelated to the technical field of piezoelectric ceramic compositions. However, Kennedy et al. is related to the broader technical field of ceramic compositions; as such, it would have been obvious to a person of ordinary skill in the art to combine the teachings of Kennedy et al. with those of Kimura et al.

Applicant argues that neither Kimura et al. nor Kennedy et al., nor the combination thereof discloses all of the technical findings, or claimed features, which address the relation between sintering aid components and piezoelectric characteristics. However, the references need not disclose the same technical findings or relationships between sintering aids and piezoelectric characteristics, the references only need to show each of the claimed structural features.